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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,969	06/19/2002	Matthias Katter	47192/270460	6636
23370	7590	10/21/2004	EXAMINER	
JOHN S. PRATT, ESQ KILPATRICK STOCKTON, LLP 1100 PEACHTREE STREET ATLANTA, GA 30309			SHEEHAN, JOHN P	
		ART UNIT	PAPER NUMBER	1742

DATE MAILED: 10/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/088,969	KATTER ET AL.
	<b>Examiner</b> John P. Sheehan	<b>Art Unit</b> 1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM  
**THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 06 August 2004.
- 2a) This action is **FINAL**.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-15 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_
- 4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date. \_\_\_\_\_
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Substitute Specification***

1. The substitute specification filed August 6, 2004 has not been entered because it does not conform to 37 CFR 1.125(b) and (c) because: The statement that the substitute specification contains no new matter under 37 CFR 1.125(b) is missing, MPEP 608.01(q). Applicants have made the statement;

"Applicants believe no new matter has been included"

However, in view of the use of the qualifier, "believe" applicants' do not comply with 37 CFR 1.125 that requires applicants to state without qualification that no new matter was included, MPEP 608.01(q).

In view of the fact that applicants' substitute has not been entered the Examiner's objection to the specification have been maintained and are repeated below.

### ***Specification***

1. The single spacing of the lines of the specification and claims is such as to make reading difficult. New application papers with lines double spaced on good quality paper are required.
2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

- I. The proportions recited in claim 1, lines 7 to 13 do not find antecedent support in the specification as filed.
  - II. The formula appearing in claims 2 does not find support in the specification.
  - III. The formula appearing in claims 4 does not find support in the specification.
  - IV. The claimed process including the steps and operating conditions recited in process claims 10 to 15.
3. The disclosure is objected to because of the following informalities:
- I. The specification at page 2, lines 13 and 14 refers to claim 1 and page 3, lines 6 and 7 refers to claim 6. It is not proper to refer to the claims in the specification in that the claims may be amended, canceled and/or renumbered during prosecution.
  - II. In Table 1 appearing on page 6 of the specification the headings, "SE in Gew.%", "B-Gehalt in Gew.%" and "Fe-Gehalt in Gew.%" are not understood. It appears these headings are not in English.
  - III. In like manner, in Table 2 on page 9 of the specification, the headings of the first three columns are not understood. It appears these headings are not in English.
  - IV. In like manner, in Table 3 on page 14 and Table 4 on page 15 of the specification, the meaning of the column headings, "Zusammensetzung in

Gews.%", "SE, effektiv" and B, effecktiv" and "Analβ-temp." are not understood.

It appears these headings are not in English.

Appropriate correction is required.

### ***Substitute Drawings***

4. The Examiner acknowledges receipt of the replacement drawing submitted August 6, 2004 (replacing Figures 1 and 5 to 9). The Examiner objects to these replacement drawings in that they are not identified in the top margin as "Replacement Sheet" (37 CFR 1.121(d)). See the information below regarding the procedure to effect drawing changes.

5. Accordingly, the substitute drawings have not been entered. In view of the fact that applicants' substitute drawings have not been entered the Examiner's objection to the drawings have been maintained and are repeated below.

### **INFORMATION ON HOW TO EFFECT DRAWING CHANGES**

#### **Replacement Drawing Sheets**

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" (37 CFR 1.121(d)) and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

### **Annotated Drawing Sheets**

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheets must be clearly labeled as "Annotated Marked-up Drawings" and accompany the replacement sheets.

### **Timing of Corrections**

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

### ***Drawings***

6. The drawings are objected to because in Figures 1 and 6 to 10 the meaning of the phrase, "Gew.-%" is not clear. It does not appear to be English. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 112, 1<sup>st</sup> Paragraph***

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 10 to 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

I. The "annealing" step recited in 10, the 7<sup>th</sup> from the last line, does not find support in the application as filed.

II. In claims 12 and 14, lines 2 and 3, the phrase, "cooled...following maintenance of the sintered blank at holding temperature" does not find support in the application as filed.

#### ***Claim Rejections - 35 USC § 112, 2<sup>nd</sup> Paragraph***

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 10 and claims 11 to 15 dependent therefrom are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

I. In claim 10, line 3, "powder" lacks a clear antecedent. What powder is this, is this a powder of the alloy of claim 1?

***Claim Rejections - 35 USC § 103***

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1 to 9 are rejected under 35 U.S.C. 103(a) as being obvious over each of Kim et al. (Kim, US Patent No. 5,589,009, cited by applicants in the IDS submitted August 13, 2002) or Uchida et al. (Uchida, EPO document No. 0 753 867 A1, cited by applicants in the IDS submitted June 11, 2002).

Each of the references teaches a permanent magnet having a composition that overlaps the alloy composition recited in the instant claims.

Element	Applicants' Claims	Kim (col. 1, lines 43 to 60)	Uchida (page 3, lines 34 to 48)
Rare-Earth	26.9-33	27-35	27-31
Boron	0.726-0.997	0.9-1.2	0.5-2.0
Co	0.5-5	up to 30	0.3-5
Cu	0.05-0.3	0.02-0.5	0.01-1.0
Ga	0.05-0.35	0.02-0.5	0.01-0.5
Al	0.02-0.3	up to 5	0.02-2.0

The boron proportions listed above for the instant claims were calculated by substituting the [SE]<sub>eff</sub> values recited in the claims into the claimed equation for [B]<sub>eff</sub>.

Each of these references teaches specific example alloys that closely approximate that claims alloy composition. Kim teaches a specific example alloy that with the exception of the B content is encompassed by instant claims (column 15, Table XI, Alloy I). Kim's Alloy I contains 1.1 weight % B while the instant claims recite an upper limit of 0.997 weight %, otherwise Kim's Alloy I is completely encompassed by the instant claims. Uchida teaches several specific alloy compositions that with the exception of the B content are encompassed by the instant claims (page 14, Table 2, Examples 4 to 6, 8,9 and comparative alloy 7). These alloys contain 1.00 to 1.05 weight % B while the instant claims recite an upper limit of 0.997 weight %, otherwise Uchida's cited example alloys are completely encompassed by the instant claims.

The claims and the references differ in that the reference do not teach the exact same proportions as recited in the instant claims and the specific alloys cited by the Examiner contain 1.0 to 1.1 weight % B while the instant claims recite an upper limit of 0.997 weight % B. Further, some of Uchida's alloys contain Nb.

However, one of ordinary skill in the art at the time the invention was made would have considered the invention to have been obvious because the alloy proportions taught by the references overlap the instantly claimed proportions and therefore are considered to establish a *prima facie* case of obviousness. It would have been obvious to one of ordinary skill in the art to select any portion of the disclosed ranges including the instantly claimed ranges from the ranges disclosed in the prior art reference, particularly in view of the fact that;

"The normal desire of scientists or artisans to improve upon what is already generally known provides the

motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages", In re Peterson 65 USPQ2d 1379 (CAFC 2003).

Also, In re Geisler 43 USPQ2d 1365 (Fed. Cir. 1997); In re Woodruff, 16 USPQ2d 1934 (CCPA 1976); In re Malagari, 182 USPQ 549, 553 (CCPA 1974) and MPEP 2144.05.

Further, the cited example alloys taught by each of the references, except for the B content, are encompassed by applicants' claimed alloy. The example alloys cited by the Examiner contain 1.0 to 1.1 weight % B while the instant claims recite and upper limit of 0.997 weight % B. In view of this, the alloys taught by the references closely approximate the instantly claimed alloy composition and are so close that one would have expected the alloys taught by the references and the claimed alloys to have the same properties, Titanium Metals v. Banner, 227 USPQ 773 and MPEP 2144.05.

Regarding Uchida's example alloys containing Nb, it is the Examiner's position that the open claim language, "comprising" used in the instant claims does not preclude additional elements such as Nb from the applicants' claimed alloys.

### ***Response to Arguments***

1. Applicant's arguments filed August 8, 2004 have been fully considered but they are not persuasive.

Applicants' arguments regarding the boron content based upon specific examples of the references are not persuasive. Applicants' arguments are based on specific examples taught by the references, however the teachings of a reference are not limited to merely that which is set forth in the examples. Instead, "[a] reference may

be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art", MPEP 2123. The Examiner realizes that the applicants' claimed rare earth content and boron content must be correlated by the formulas set forth in the claims. Thus, according to the formulas recited in the applicants' claims the alloys having the following rare earth contents have the following boron contents.

<u>Applicants' Rare Earth wt%</u>	<u>Applicants' Boron wt%</u>
27 wt%	0.991 to 0.996 wt%
30 wt%	0.859 to 0.955 wt%
31 wt%	0.815 to 0.941 wt%
32 wt%	0.771 to 0.928 wt%
33 wt%	0.726 to 0.914 wt%

A comparison of the above rare earth and boron contents encompassed by applicants' claims to Kim's and Uchida's disclosed rare earth and boron contents as set forth above in the statement of the rejection shows that contrary to applicants' arguments the instantly claimed rare earth and boron contents overlap those taught by Kim and Uchida.

Applicants' arguments regarding the case law cited by the Examiner are not persuasive. The cases cited by the Examiner are directed to various overlapping range situations and are cited and quoted in MPEP 2144.05(I) in the section entitled Overlap of Ranges. This section of the MPEP explains the PTO policy regarding the treatment of overlapping ranges and the cited case law provides the basis for this policy. There is nothing in the case law or in the MPEP that limits the interpretation of the cited cases in

a manner that renders the principle of overlapping ranges inapplicable to the present fact situation.

***Conclusion***

2. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Sheehan whose telephone number is (571) 272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
John P. Sheehan  
Primary Examiner  
Art Unit 1742

jps